



US005234437A

**United States Patent** [19]

Sepetka

[11] **Patent Number:** **5,234,437**[45] **Date of Patent:** **Aug. 10, 1993**[54] **DETACHABLE PUSHER-VASOOCCLUSION COIL ASSEMBLY WITH THREADED COUPLING**[75] **Inventor:** Ivan Sepetka, Redwood City, Calif.[73] **Assignee:** Target Therapeutics, Inc., Fremont, Calif.[21] **Appl. No.:** 806,898[22] **Filed:** Dec. 12, 1991[51] **Int. Cl.<sup>5</sup>** ..... A61B 17/00[52] **U.S. Cl.** ..... 606/108; 606/194; 128/772; 604/158[58] **Field of Search** ..... 606/109, 191, 194, 198, 606/200; 604/158, 170, 281, 282; 128/656, 654, 772[56] **References Cited****U.S. PATENT DOCUMENTS**3,868,956 3/1975 Alfida et al. .... 606/108  
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5,098,374 3/1992 Othel-Jacobsen et al. .... 604/8*Primary Examiner*—Edgar S. Burr*Assistant Examiner*—Christopher A. Bennett*Attorney, Agent, or Firm*—Morrison & Foerster[57] **ABSTRACT**

A pusher-vasoocclusive coil assembly that is advanced through a catheter to a site within a vessel and is manipulated to detach the coil from the assembly. The pusher has a distal end that is initially threaded into the proximal end of the coil and the assembly includes a sleeve that is slid over the pusher and whose distal edge abuts the proximal end of the coil to hold the coil in place while the distal end of the pusher is threaded out of the coil to detach the coil at the site.

**14 Claims, 2 Drawing Sheets**